

WE CLAIM:

1. A method of regulating data channel transmission power of a data communications device during "off-hook" events of a POTs channel handset co-connected with the data communications device, the method comprising steps of:
 - a) determining a value of one or more user control indicators indicative of user-discernible performance qualities;
 - b) calculating a data channel transmission power level using the value of the one or more user control indicators;
 - c) saving the calculated power level in a memory of the communication device; and
 - d) setting the data channel transmission power in response to the calculated power level during an off-hook event associated with POTs channel handset.
2. The method as claimed in claim 1 wherein the step of calculating comprises calculating an upstream power reduction value and a downstream power reduction value.
3. The method as claimed in claim 1 wherein the step of calculating further comprises calculating a downstream power reduction value.

4. The method as claimed in claim 1 wherein a step of setting includes a step of signaling the downstream power value to a central office with which the data communications device is in communication.
5. The method as claimed in claim 1 further including a step of determining a default off-hook power level and wherein the step of calculating is responsive to the default off-hook power level.
6. The method as claimed in claim 1, wherein the user-discernible performance qualities include at least one of: data transmission speed of the communication device; audible interference in the POTs channel handset; and a user prioritization between data channel and POTs channel performance.
7. The method as claimed in claim 1, wherein the step of determining a value includes steps of:
 - a) providing to a user a means for inputting a selected value of the user control indicators; and
 - b) receiving the user's selected value.
8. The method as claimed in claim 4, wherein the step of receiving is performed during an off-hook event of the POTs channel handset.
9. A method of controlling audible interference in a POTs channel handset induced by data channel transmission power of a co-connected xDSL

communications device, the method comprising the steps of:

- a) defining at least one user-selectable attribute indicative of at least one user-discernible performance quality;
- b) monitoring the at least one attribute for a change in state;
- c) calculating a level of data transmission power on the basis of the at least one attribute;
- d) storing the calculated power level in a memory of the communication device; and
- e) during an off-hook event of the POT's handset, controlling the data channel transmission power of the communications device in accordance with the saved power level.

- 10. The method as claimed in claim 8 wherein the step of calculating comprises calculating an upstream power reduction level.
- 11. The method as claimed in claim 10 wherein the step of calculating further comprises a step of calculating a downstream power reduction level.
- 12. The method as claimed in claim 9 wherein the step of controlling further includes a step of signaling the downstream power value to a central office with which the data communications device is in communication.

13. The method as claimed in claim 9, wherein the user-discernible performance quality includes at least one of: data transmission speed of the communication device; audible interference in the POTs channel handset; and a user prioritization between data channel and POTs channel performance.
14. The method as claimed in claim 9, wherein the step of monitoring includes steps of:
 - a) providing an interface to permit a user to input a selected value for the at least one user-selected attribute; and
 - b) receiving the user's selected value.
15. The method as claimed in claim 14, wherein the step of receiving is performed during an off-hook event of the POTs handset.
16. The method as claimed in claim 14, wherein the step of providing an interface includes a step of presenting to the user a default value for the user-selected attribute and the step of calculating is responsive to the default value.
17. A computer program for controlling audible interference in a co-connected POTs channel handset induced by data channel transmission power utilized by customer premises equipment (CPE) for digital subscriber line (DSL), comprising:
 - a) instructions for generating and displaying an interface for receiving at least one user-

selectable attribute indicative of at least one user-discernible performance quality;

- b) instructions for calculating a level of data transmission power on the basis of the at least one attribute;
- c) instructions for storing the calculated power level; and
- d) instructions for detecting an off-hook event of the POTS handset and, in response to detecting an off-hook event, for controlling the data channel transmission power of the communications device in accordance with the saved power level.

18. The computer program as claimed in claim 17 wherein the program further calculates an upstream power reduction level.
19. The computer program as claimed in claim 18 wherein the program further calculates a downstream power reduction level.
20. The computer program as claimed in claim 18 further including instructions to operate the CPE to signal the downstream power value to a central office with which the data communications device is in communication.
21. The program as claimed in claim 17, wherein the user-discernible performance quality includes at least one of: data transmission speed of the communication device; audible interference in the POTS channel

handset; and a user prioritization between data channel and POTs channel performance.

22. The program as claimed in claim 17, wherein the program receives the user-selected attribute in response to a user input.
23. The program as claimed in claim 22, wherein the program retrieves the attribute from storage during each off-hook event of the POTs handset.
24. The program as claimed in claim 17, further comprising:
 - a) instructions for calculating a default power level for controlling audible interference in the POTs channel;
 - b) instructions for storing the default power level in a memory;
 - c) instructions for communicating the default power level to the CPE; and
 - d) during an off-hook event and in the absence of a user selected attribute, instructions for controlling the data channel transmission power in accordance with the default power level.
25. A method of regulating data channel transmission power of a data communications device during "off-hook" events of a POTs channel handset co-connected with the data communications device, the method comprising a steps of:

- a) calculating default data channel transmission power levels using parameters based on a target minimum data rate, a default audible noise protection level, and linearity measures obtained using a line probe;
- b) saving the calculated data default data channel transmission power levels in a memory; and
- c) applying the default data channel transmission power levels in the absence of a user preference indication that overrides the default.